

*CLAIM AMENDMENTS*

1. (Currently Amended) ~~A wavelength converting method that wavelength-converts a comprising passing light of a first wavelength through a non-linear optical crystal, characterized in that an atmosphere that is and outputting the light from an output surface of the non-linear crystal at a second wavelength different from the first wavelength, the output surface being in contact with a surface of said non-linear optical crystal from which the light that has been wavelength-converted is outputted is a gas that is smaller in content of a gaseous ambients containing less nitrogen-elements than air, and the wavelength-conversion is conducted in the atmosphere.~~

2. (Currently Amended) ~~A The wavelength converting method according to claim 1, characterized in that wherein an incident-end surface of the non-linear optical crystal to on which the light to be wavelength-converted is inputted incident and the outgoing-end output surface of the non-linear optical crystal from which the wavelength-converted light is outputted are surrounded by in a gas gaseous ambient that is smaller in the content of contains less nitrogen-elements than air, and the wavelength-conversion is conducted in the gas.~~

3. (Currently Amended) ~~A The wavelength converting method according to claim 1, characterized in that an atmosphere wherein respective ambient that is are in contact with the an incident end-surface of the non-linear optical crystal to on which the light to be wavelength-converted is inputted incident and an atmosphere that is in contact with an outgoing-end the output surface of the non-linear optical crystal from which the wavelength-converted light is outputted are gases that contain are different components, respectively, and the wavelength-conversion is conducted in the gases.~~

4. (Currently Amended) ~~A The wavelength converting method according to claim 1, characterized in that the gas including circulating the gaseous ambient that is smaller lower in the content of nitrogen-elements than air is circulated.~~

5. (Currently Amended) ~~A The wavelength converting method according to claim 4, characterized in that including, after the gas that is smaller in the content of nitrogen-elements than air gaseous ambient is supplied to the vicinity of at least the outgoing-end output surface of the non-linear optical crystal, exhausting the gas is exhausted gaseous ambient.~~

6. (Currently Amended) ~~A~~ The wavelength converting method according to claim 1, characterized in that wherein the gas that is smaller in the content of nitrogen elements than air is a gas that is gaseous ambient contains no more than 10% or less in the by volume content of the gas containing nitrogen elements therein.

7. (Currently Amended) ~~A~~ The wavelength converting method according to claim 1, characterized in that wherein the non-linear optical crystal is a crystal including cesium.

8. (Currently Amended) ~~A~~ The wavelength converting method according to claim 1, characterized in that wherein the gas is a gas that gaseous ambient mainly contains any one of a rare gas, an oxygen gas, and a carbon dioxide gas.

9. (Currently Amended) ~~A~~ The wavelength converting method according to claim 3, characterized in that wherein the gas which is an atmosphere that is in contact with a surface of the non-linear optical crystal from which the wavelength-converted light is outputted and smaller in the content of nitrogen elements than air gaseous ambient is a gas that mainly contains argon gas therein.

10. (Currently Amended) A wavelength converting device that wavelength-converts a light passed through a non-linear optical crystal, ~~characterized by comprising a means for setting an atmosphere that is~~ controlling a gaseous ambient in contact with a an output surface of said the non-linear optical crystal from which the light that has been wavelength-converted is outputted to a gas that is smaller in content of so the gaseous ambient contains less nitrogen elements than air.

11. (Currently Amended) ~~A~~ The wavelength converting device according to claim 10, characterized in that wherein the wavelength-converted light that is output is at least 5 W or higher in mean power is outputted.

12. (Currently Amended) ~~A~~ The wavelength converting device according to claim 10, characterized by further comprising a means for surrounding an incident end surface of the non-linear optical crystal to on which the light to be wavelength-converted is inputted incident and an outgoing end the output surface of the non-linear optical crystal from which

~~the wavelength-converted light is outputted by~~ with a gas gaseous ambient that is smaller  
lower in the content of nitrogen elements than air.

13. (Currently Amended) ~~A~~ The wavelength converting device according to claim  
10, characterized by further comprising a means for setting an atmosphere that is controlling  
respective gaseous ambients in contact with the an incident end surface of the non-linear  
optical crystal to on which the light to be wavelength-converted is inputted incident and an  
atmosphere that is in contact with the outgoing end output surface of the non-linear optical  
crystal from which the wavelength-converted light is outputted to gases that contain so that  
the gaseous ambients are different components, respectively.

14. (Currently Amended) ~~A~~ The wavelength converting device according to claim  
10, characterized by further comprising a means for allowing circulating the gas that is  
smaller in the content of nitrogen elements than air to be circulated gaseous ambient.

15. (Currently Amended) ~~A~~ The wavelength converting device according to claim  
14, characterized in that a wherein the non-linear optical crystal is disposed within a vessel in  
which including a window or an opening that allows an incident light or an outgoing light to  
pass therethrough is partially disposed, and a means for supplying a gas which is smaller  
lower in the content of nitrogen elements than air to the vicinity of at least the outgoing end  
output surface of the non-linear optical crystal within said vessel, and a means for exhausting  
said supplied gas from said vessel are provided.

16. (Currently Amended) ~~A~~ The wavelength converting device according to claim  
10, characterized in that wherein the gas that is smaller in the content of nitrogen elements  
than air is a gas that is gaseous ambient contains no more than 10% or less in the by volume  
content of the gas containing nitrogen elements therein.

17. (Currently Amended) ~~A~~ The wavelength converting device according to claim  
10, characterized in that wherein the non-linear optical crystal is a crystal including cesium.

18. (Currently Amended) ~~A~~ The wavelength converting device according to claim  
10, characterized in that wherein the gas that is smaller in the content of nitrogen elements  
than air gaseous ambient is a gas that mainly contains anyone of a rare gas, an oxygen gas,  
and a carbon dioxide gas.

19. (Currently Amended) ~~A~~ The wavelength converting device according to claim 13, characterized in that wherein the gas which is an atmosphere that is gaseous ambient in contact with a the output surface of the non-linear optical crystal from which light is outputted and smaller in the content of nitrogen elements than air is a gas that mainly contains argon gas therein.

20. (Currently Amended) A laser machining device comprising a machining device, a laser device which is a light source for wavelength conversion as a machining light source, and ~~a means for setting an atmosphere which is~~ controlling an ambient in contact with a surface of a non-linear optical crystal from which ~~a wavelength-converted light is outputted to a gas which is smaller in the content of,~~ so the ambient contains less nitrogen elements than air, and a wavelength converting device that wavelength-converts a laser beam from said laser device and passing through said the non-linear optical crystal.